

CLAIMS:

1. A phase comparator, particularly for a PLL module, that compares the phase angle of a first input signal with a second input signal by evaluating the edges of the input signals and generates reset signals therefrom, characterized in that at least one additional circuit (4, 5) is provided that evaluates further, different edges of the input signal or signals (SIG, COMP) and generates therefrom additional reset signals (CLR_N) for the regulating signal or signals (UP, DOWN).
5
2. A phase comparator as claimed in claim 1, characterized in that the phase comparator obtains the regulating signals from the rising/decaying edges (a, b) of the input signals (SIG, COMP) and in that the additional circuit (4, 5) derives the additional reset signals (CLR_N) from the decaying/rising edges (c, d) of the input signals (SIG, COMP).
10
3. A phase comparator as claimed in any of the foregoing claims, characterized in that a dedicated additional circuit (4, 5) is provided for each of the two input signals, with one additional circuit (4) evaluating the edges of the first input signal (SIG) and the second additional circuit (5) evaluating the edges of the second input signal (COMP).
15
4. A phase comparator as claimed in any of the foregoing claims, characterized in that one additional circuit (4) evaluates the rising (a) and decaying (c) edges of one input signal (SIG) and the other additional circuit (5) evaluates the rising (b) and decaying (d) edges of the other input signal (COMP).
20
5. A phase comparator as claimed in any of the foregoing claims, characterized in that the output signals (A, B) from the additional circuits (4, 5) are applied to the reset inputs (CLR_N) of flip-flops (1, 2) belonging to the phase comparator via a gate (15), there also being connected to the gate (15) a gate (3) to which the regulating signals (UP, DOWN) are applied.
25

6. A phase comparator as claimed in any of the foregoing claims, characterized in that the additional circuits (4, 5) each have two RS flip-flops (6, 7 and 6', 7' respectively) and gates (8 to 14 and 8' to 14' respectively), which are integrated into the PLL circuit.

5 7. A phase comparator as claimed in claim 1 or 2, characterized in that the two input signals (SIG, COMP) are applied to the additional circuit (4 or 5) via an OR gate.